

Digital Storytelling Story Board

Division Property of Inequality

pos. # direction same neg. # direction reversed

$$\begin{array}{r} 4x \geq 4 \\ \underline{4} \downarrow \underline{4} \\ x \geq 1 \end{array} \qquad \begin{array}{r} -2x \leq 8 \\ \underline{-2} \downarrow \underline{-2} \\ x \geq -4 \end{array}$$

Example #3 Gathering Variables

Solve $6z - 15 < 4z + 11$ (gather like)

$$\begin{array}{r} 6z - 15 < 4z + 11 \\ \underline{-4z} \quad \underline{-4z} \\ 2z - 15 < 11 \\ \underline{+15} \quad \underline{+15} \\ 2z < 26 \\ \underline{2} \quad \underline{2} \\ z < 13 \end{array}$$



less than open circle

Example #1 (More than 1 Step)

Solve $7 + 6a > 19$
(subtract 7 each side)

$6a > 12$ (simplify)

$$\frac{6a}{6} > \frac{12}{6} \quad a > 2$$



greater than open circle

Example #2 (Distributive Prop)

Solve $2(t+2) - 3t \geq -1$

$2t + 4 - 3t \geq -1$ (distribute)

$-t + 4 \geq -1$

$\underline{-4} \quad \underline{-4}$

$-t \geq -5$ (simplify)

\downarrow
 $t \leq 5$ (sign change)



less than or = to closed circle

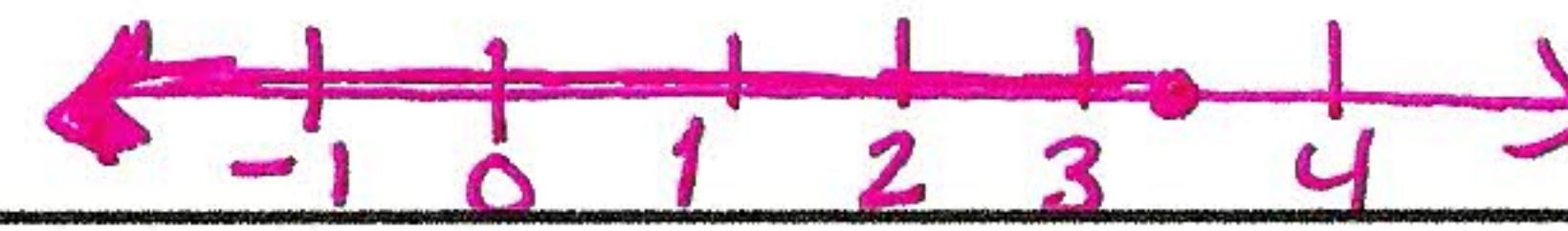
Example #4 (Multi-Step)

Solve $-3(4-m) \geq 2(4m-14)$

$-12 + 3m \geq 8m - 28$ (like terms)

$\underline{-8m} \quad \underline{-8m}$
 $-12 - 5m \geq -28$ (like terms)

$\underline{+12} \quad \underline{+12}$
 $-5m \geq -16$
 \downarrow
 $m \leq 3\frac{1}{5}$



less than or = to closed circle

Credits:

Music Courtesy of:
Aaron Smith ; Archiere.org;
<http://www.archive.org/details/sb>

Sweet background